Garrett Aviation Services, Inc, a wholly owned subsidiary of GE, hereby submits the attached comments on Notice of Proposed Rulemaking (NPRM) Docket No. FAA-2000-8017 published in the Federal Register on October 2, 2000, titled "14 CFR Parts 43 and 45 Safe Disposition of Life-Limited Aircraft Parts." Garrett Aviation Services and its various facilities hold numerous domestic and foreign repair station certificates pursuant to FAR Part 145 and together on behalf of General Electric Company provide comprehensive maintenance, repair and overhaul services for commercial airlines, regional airlines, corporate airlines, and corporate aviation. These comments are on behalf of all Garrett Aviation repair stations.

Garrett Aviation Services supports the FAA in its efforts to ensure that Life Limited Parts (LLP) are properly marked, tracked, segregated, dispositioned and disposed of when their life has expired. However, a thorough reading of this Notice of Proposed Rulemaking, which is intended to accomplish this task, causes us some concern. The proposed changes to the regulations are ambiguous and may be subject to arbitrary interpretation, may result in
life-limited parts being damaged due to improper marking and will result in higher costs to repair stations than those estimated by the FAA in the NPRM.

Garrett Aviation Services specific comments on the proposed rule are as follows:

The FAA has proposed to add subparagraph (c) to FAR Part 43.1 Applicability that states:

(c) This part applies to each person who removes, segregates, or dispositions a life-limited part from a type-certificated product as provided in Sec. 43.10.

Comment:

The proposed language is acceptable to Garrett Aviation Services.

The proposed 43.10 Disposition of life-limited aircraft parts states in (a) states applicable definitions.

" For the purposes of this section the following definitions apply.

Life-limited part means any part for which a mandatory replacement **time** is specified in the Airworthiness Limitations section of a type certificate holder's maintenance manual or Instructions for Continued Airworthiness."

Life status means the accumulated cycles, hours, or any other mandatory replacement time of a life-limited part. "

Comment:

Limitations on the life of aircraft parts are not always given in terms of time. Time, cycles or other criteria are often used to define these limits. Additionally the use of time as a descriptor for limit is inconsistent with the definition given for "Life status" in the same subparagraph that refers to limits in terms of accumulated cycles as well as in time.

Garrett Aviation Services recommends that the regulatory definition should address limit rather than time, since time is only one of several possible limits and that the definition of a Life-limited be amended to read as follows:
Life-limited part means any part for which a mandatory replacement **limit** is specified in the Airworthiness Limitations section of a type certificate holder's maintenance manual or Instructions for Continued Airworthiness."

Further Life status is defined in the same sub-paragraph as:

"Life status means the accumulated cycles, hours, or any other mandatory replacement time of a life-limited part. "
In this definition the FAA has described the restrictions on Life-limited parts in terms of cycles but maintains that limits are expressed only in terms of time.

Garrett Aviation recommends that the definition of Life Status be changed to read as follows:

"Life status means the accumulated cycles, hours, or any other mandatory replacement limit of a life-limited part. "

In subparagraph (b) of the proposed 43.10 it states as follows:

(b) After [the effective date of the final rule], each person who removes a life-limited part from a type-certificated product must ensure that the part is controlled using one of the methods in paragraphs (b)(1) through (6) of this section.

Comment:

In FAR Part 1 the FAA has defined the term person.

""Person" means an individual, firm, partnership, corporation, company, association, joint-stock association, or governmental entity. It includes a trustee, receiver, assignee, or similar representative of any of them."

The use of the term person in this subparagraph may lead to arbitrary interpretations of the rule as to the "person" responsible for compliance since it is unclear who in large organizations is the "person" responsible for the control of the particular life-

limited part. In an air carrier facility or large aircraft/engine overhaul facility a mechanic may remove the life-limited part from an aircraft or aircraft engine and return the part to a materials clerk. In this example it is likely that the person responsible for controlling the part is neither the mechanic nor clerk but is in fact the air carrier or overhaul facility, in accordance with methods in their procedures manual under which the mechanic and materials clerk perform work. In the preamble to the rule the FAA recognized this and determined that the "person" making disposition of the part in question was responsible for compliance with the regulations. The FAA needs to provide this clarity in the proposed regulation. Garrett Aviation Services recommends that the proposed 43.10(b) be changed to read as follows:

(b) After [the effective date of the final rule], each person who **dispositions** a life-limited part **removed** from a type-certificated product must ensure that the part is controlled using one of the methods in paragraphs (b)(1) through (6) of this section.

In 43.10(b)(1)-(6) the proposed rule lists the six approved methods for maintaining control of life-limited parts. Garrett Aviation Services has commented as we believe appropriate after each method.

Approved methods include:

(1) The part may be segregated under circumstances that preclude its installation on a type-certificated product. These circumstances must include, at least—

(i) Keeping a record of the serial number and current life status of the part, and
(ii) Ensuring the part is stored separately from serviceable parts.

Comment:

To avoid arbitrary interpretation of the rule Garrett Aviation Services recommends that the language in method 1 be amended to read as follows:

(1) The part may be stored under circumstances that provide for control of any subsequent installation on a type-certificated product. These circumstances must include at a minimum –

(i) Keeping a permanent record of the part that includes part number, serial number and the current life status of the part.
and
(ii) Ensuring that the part is segregated from other parts if it has reached its life limit.

(2) The part may be permanently and legibly marked, if practical, to indicate its life status. The life status must be updated each time the part is removed from service. Unless the part is permanently removed from service, this marking must be accomplished in accordance with the manufacturer's marking instructions, in order to maintain the integrity of the part, as required under Sec. 45.14 of this chapter.

Comment:

This item 2 and item 4 are similar in intent and should be combined to add clarity to the rule. Garrett Aviation Services recommends that the language in 2 be amended to include the requirements of item 4 and amended as follows:

(2) The part may be marked, if practical, to include life status, such marking may be permanent in nature. The life status must be updated each time the part is removed form service. This marking must be accomplished in accordance with the manufacturer's documented marking instructions, unless the part is being removed from service, in order to maintain the integrity of the part, as required under Sec. 45.14 of this chapter. Marking applied to the part must be legible.

(3) Parts that have reached their life-limit may be destroyed in any manner that prevents installation in a type-certificated product.

Comment:

The proposed language is acceptable to Garrett Aviation Services.

(4) The part may be marked, if practical, to include the life status. The life status must be updated each time the part is removed from service. This marking must be accomplished in accordance with the pertinent manufacturer's marking instructions, in order to maintain the integrity of the part, as required under Sec. 45.14 of this chapter.

Comment:

Garrett Aviation Services recommends that this item be removed and it's contents be combined with item 2. Please see comments and recommended language in comments on item 2 above

(5) If it is impractical to mark the part, a tag may be attached to the part to include the life status. The tag must be updated to reflect life status each time the part is removed from service.

Comment:

Since tags are removed in order to perform normal maintenance activities, such as cleaning, or may become accidentally separated in the course of transport or during storage, Garrett Aviation Services recommends that the FAA require the tag to contain information that provides for easy traceability to its accompanying part.

Garrett Aviation Services recommends that item 5 be amended to read as follows:

(5) If it is impractical to mark the part, a tag may be attached to the part to include the life status. The tag must contain information that would allow the tag to be re-matched with the part should they become separated. As a minimum the tag must contain the part number and serial number of the part. The tag must be updated to reflect life status each time the part is removed from service.

(6) Any other method approved by the Administrator.

Comment:

The proposed language is acceptable to Garrett Aviation Services.

Cost Estimates made in the NPRM by the FAA

The FAA has estimated that of the 5,000 involved shops, 1,500 would be most affected and those shops would perform 300 procedures each per year, the remaining 3,500 shops were estimated at 50 procedures each per year. Garrett Aviation Services does not agree with these estimates. Garrett Aviation Services estimates that in excess of 30,000 procedures are performed in its major engine overhaul and component facilities on an annual basis. This number will vary based upon level of work performed, e.g. full overhauls, module changes and so on. In any case the number of procedures performed exceeds the estimates made by the FAA. We estimate that Garrett Aviation Services would incur an annual cost of $587,000. When prorated across the affected Garrett Aviation Services repair stations a resultant cost of approximately $100,000 annually. We believe these costs are representative of the costs the industry could be expected to incur. If these costs were applied across the 5000 shops estimated to be affected by the FAA the resultant industry cost would be $12 million not the $2.6 million originally estimated. In addition, Garrett Aviation Services estimates that the number of procedures is much higher than the FAA estimate. Garrett Aviation Services estimates that the 1,500 most affected shops will perform 4000 procedures while the remainder will perform 300 procedures annually. This results in approximately 10 million procedures at a cost of $192 million. This is a significantly larger burden on the industry that was recognized by the FAA in the NPRM.